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**Delivery of Career Counseling Services:
Videodisc & Multimedia Career Interventions:
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OVERVIEW

It is estimated that over one-third of Canada's high-school students will drop out of school. (Employment & Immigration Canada, 1990). This is devastating when one considers that two-thirds of the new jobs created between now and the year 2000 will require qualifications beyond high school (Employment & Immigration Canada, 1989). One of the great challenges to career development professionals is how to motivate this massive "at-risk" youth population (a) to persist with education & training through high school and beyond, and (b) to take responsibility for, and action toward, their own career development. The advent of multimedia computer technology has increased the potential for "high impact" career interventions. This can be particularly effective for at-risk youth, a population with extremely low motivation to use print-based materials.

DISCUSSION

Knowledge for Youth About Careers (KYAC) is one such interactive, multimedia career program. Pilot-tests with youths aged 13-19 years suggest that it can improve motivation and can instill knowledge of (and skills in) career decision-making, information interviewing, networking, and career planning.

KYAC is based on Weiner's (1984) attribution change theory and Bandura's (1982) self-efficacy theory. The video scenes model career development skills like information interviewing, networking, mentorships, and seeking assistance with learning disabilities. Concerns such as persistence with math and science courses; women in technology, trades, and management occupations; and minority representation in all of the above, are also addressed. In addition to the videodisc, CD-ROM disc, and computer diskettes, program materials include a Facilitator Manual and Participant Workbook (photocopy master) with 32 hours of classroom & workshop activities, a Research & Development Handbook, and a Facilitator Guide to Scene Playback. The program operates on IBM PS2s and 486 DOS-based ISA computers

DESCRIPTION OF KYAC

In KYAC, students select one of two main characters, (each character then ages from 17 to 28 years), by touching their chosen character's face on the computer screen (decisions can also be made using a mouse, but at-risk youth prefer touch-screen technology). One character is a young man who has dropped out of high school and is now working as a janitor. The other is a young woman (multiracial black/white) who is having learning difficulties at school and is working part time as a waitress. A "grabber" scene (with rock music) introduces the two characters and the "future" orientation of the program. The next scene to appear is a conversation between the selected character

and his or her future self. It was found that at-risk youth much prefer this approach to the standard parent/teacher/counselor/'career expert' giving advice. Such conversations occur several times throughout the program. At the conclusion of each scene are two decision choices, represented by animated graphics. Users touch the screen (or click the mouse) to make their selections, and the computer plays an "outcome" scene, many of which have time-delays (e.g., 1 1/2 years later) built into them. In some cases, the computer selects outcome scenes based on probabilities; this allows the program to be more consistent with real life since a given decision can have a variety of outcomes. During scenes, the action "freezes" at key points, and small graphic "thought-balloons" appear on the screen. These are used (a) to enhance user identification with characters in the scenes, (b) to illustrate ineffective beliefs and attitudes, and (c) to model effective, empowering career beliefs and attitudes. If users touch (or click on) these thought-balloons within 2 seconds of when they appear, they will hear what the character is thinking. If users do not respond within 2 seconds, the icon fades and the video continues. In this way, users actively seek the information in the thought-balloons and therefore anticipate and attend to the information. This same principle applies to all of the character decision sequences users request the outcomes of their own decisions, so they are more alert when the information is presented or when skills are modeled.

Approximately 2 1/2 hours of interaction time is available in the main character decision sequences described above, although users can interrupt their interaction at any time and pick it up on another occasion. In addition, 32 hours of classroom & workshop activities reinforce and provide more personal application of the skills, knowledge, and attitudes presented in the video scenes. The program has seven other sections:



*WHODUNIT: Information interviews with 44 people who created KYAC using their own careers, which reinforces principles in the video scenes.



*WHAT TO YOU THINK?: Re-purposing of the video scenes with multiple-choice questions to promote critical thinking.



*CONCEPTS: Allows facilitators to select scenes according to the concepts presented.



*ACCESS: Allows program administrators to monitor user patterns (which characters, or decisions, or program sections are selected most often).

• *INFORMATION: Site administrators can enter local resources and contacts for 16 career and support services.

• *INSTRUCTIONS: An "inquiry mode" which allows users to "touch (or click on) what they want to know about."

• *PLAYBACK: Allows facilitators to select from a scrolling list specific scenes according to character.

FIELD TESTING KYAC

In total, 275 youth participated in one or more qualitative or quantitative evaluations of KYAC. Participants worked in formative and controlled research settings. The highlights of the last study (including 72 high-school students, 34 of which were "at-risk") are as follows:

• The Career Decision-Making Self-Efficacy Scale (Taylor & Betz, 1983) reflects that the students in this study found better ways to resolve problems with learning, math, reading, writing, exams, listening, concentrating, and remembering; good reasons to finish high school; more assurance regarding choice of occupation; reduced information needs about employment opportunities, training, and job-finding; increased sense of the importance of (a) calling and visiting employers or education/training sites for information interviews, (b) setting up co-op education or work experience placements, (c) persisting with problem-solving, (d) learning how to raise own self-esteem; increased self-confidence and anticipation of enjoyment, and decreased anticipation of hassle and discouragement from the above career tasks; and willingness to devote more hours to the above career tasks.

• Results on the Career Beliefs Inventory (Krumboltz, 1991) indicated greater willingness to try hard despite possible failure, try alternative occupations, and disclose career choices to others; belief that career obstacles could be overcome; and belief that hard work is required for success.

Additionally students exposed to KYAC spent more time thinking about themselves and their occupational futures, and talked more with other students about their occupational future, were more aware of computer-assisted instruction and other compensatory strategies for overcoming the effects of learning disabilities, and made greater application of information interviewing, networking, cooperative education, and work experience to their own 4-year career action plans.

SUMMARY AND CONCLUSIONS

Multimedia, interactive, career development interventions are particularly useful for at-risk youths, in that they supplement more traditional approaches such as cooperative education, work experience, and computer-assisted career guidance systems. Tools like KYAC are particularly useful for motivating "at-risk" career program participants and for modelling career implementation behaviors.

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